



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

ONOE, A. et al.

Atty. Ref.: 4105-18

Serial No. 10/615,600

TC/A.U.: 2627

Filed: July 9, 2003

Examiner: Haley

Confirmation No.: 8289

For: RECORDING/REPRODUCING HEAD (AS AMENDED)

\* \* \* \* \*

February 20, 2007

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT**

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider

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information that had been cited by or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

Applicants have checked the appropriate boxes below.

1. ☐ This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No statement under 37 C.F.R. § 1.97(e) or fee is required. In the event, a first Office Action has been mailed prior to filing of the present Information Disclosure Statement, the Office is requested to treat the present paper as a submission under 37 C.F.R. § 1.97(c) and charge the undersigned's Deposit Account No. 14-1140 for the fee required by 37 C.F.R. § 1.17(p). The present paper is submitted in duplicate for this purpose.

2. ☒ This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.

- a. ☐ I hereby state that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- b. ☐ I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
- c. ☒ Attached is our Check in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).
- d. ☐ Patent Term Adjustment

For purposes of patent term adjustment under 37 C.F.R. § 1.704, each item contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and

this communication was not received by any individual designated in Section 1.56(c) more than 30 days prior to the filing of the Information Disclosure Statement. 37 C.F.R. §1.704(d).

3. ☐ This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. It is hereby requested that the Information Disclosure Statement be considered. Attached is our check for \$180.00 in payment of the fee under 37 C.F.R. § 1.17(i).

a. ☐ I hereby state that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).

b. ☐ I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to my knowledge after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).

4. ☐ Relevance of the non-English language document(s) is discussed in the present specification.

5. ☐ The information identified on the attached PTO-1449 form was cited in an office action in a counterpart application dated . English-language abstracts/partial translations are enclosed for the Examiner's convenient reference.

6. ☐ A concise explanation of the relevance of the non-English language document(s) appears below:

7. ☐ The Examiner's attention is directed to co-pending U.S. Patent Application Nos., which are directed to related technical subject matter. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

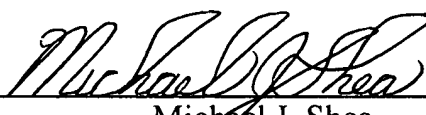
8. ☐ Copies of the documents were cited by or submitted to the Office in Application No. , filed , which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 14-1140 referencing docket number 4105-18.

Respectfully submitted,

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**INFORMATION DISCLOSURE  
CITATION**

ATTY. DOCKET NO.

4105-18

SERIAL NO.

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APPLICANT

CHO et al.

FILING DATE

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2627

(Use several sheets if necessary)

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2004/0263185	12/2004	Cho et al.	324	636	
	2004/0114913	06/2004	Kume	386	125	
	2003/0053400	03/2003	Cho et al.	369	126	
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	2003/0021213	01/2003	Hagiwara, Yoshiaki	369	101	
	4,320,491	03/1982	Rustman, James C.	369	126	
	5,418,029	05/1995	Yamamoto et al.	428	64.2	
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	7,149,180	12/2006	Onoe et al.	369	276	

**FOREIGN PATENT DOCUMENTS**

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
2003085969	03/2003	JP			ABSTRACT
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10-334525	12/1998	JP			ABSTRACT
56-107338	08/1981	JP			ABSTRACT

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

62th Japan Society of Applied Physics Lecture Meeting (2001.9 Aichi Institute of Technology) 12p-ZR-2.
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\*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

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**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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	2005/0122886	06/2005	Takahashi et al.	369	126	
	2005/0099895	05/2005	Maeda et al.	369	13.01	
	2005/0098532	05/2005	Onoe et al.	216	22	
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	2004/0252621	12/2004	Cho et al.	369	126	
	2004/0105380	06/2004	Cho et al.	369	126	
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	20020105249	08/2002	Yoshida et al.	310	311	

**FOREIGN PATENT DOCUMENTS**

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
57-200956	12/1982	JP			ABSTRACT
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**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

	Kazuta et al, "Determination of crystal polarities of piezoelectric thin film using scanning nonlinear dielectric microscopy", Journal of European Ceramic Society 21 (2001) 1581-1584.
	The Institution of Electrical Engineers, Stevenage, GB; 1 June 2002; Hiranaga et al, "Nano-sized inverted domain formation in stoichiometric LiTaO <sub>3</sub> /single crystal using Scanning Nonlinear Dielectric Microscopy", XP002292217.
	Cho et al, "Scanning nonlinear dielectric microscopy with nanometer resolution", Journal of European Ceramic Society 21 (2001) 2131-2134.
	Cho et al., "Nano domain engineering using scanning nonlinear dielectric microscopy, October 29, 2001, IEE-NANO 2001, pages 352-357.

\*Examiner

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